WA-Trans Steering Committee Meeting Notes
April 25, 2005

Attendees:

Member	Association	Representing
Tareq Al-Zeer	WSDOT	WSDOT
Sam Bardelson	US Geological Survey Washington Liaison	The National Map
Michelle Blake	WSDOT GIS Data Administrator	WSDOT
Chuck Buzzard	Pierce County GIS	West side local government
Tami Griffin	WSDOT Geographic Services	WA-Trans (Project Manager), Facilitator
Jerry Harless	Puget Sound Regional Council	MPO's, RTPO's
Wendy Hawley	Census Bureau	US Bureau of Census
David Koch	WA Department of Information Service	Information Services Board – Project Oversight
Dave Rideout	Spokane County Engineers Office	Spokane County
Sarah Schroder	WSDOT	WSDOT Office of Information Technology
Elizabeth Stratton	WSDOT	Freight Interests
Ian Von Essen	Spokane County GIS	E-911

Not Attending:

Member	Association	Representing
Roland Behee	Community Transit	Transit Organizations
Dave Cullom	Washington Utilities and Transportation Commission	Pipelines, Utilities, Railroad
Dan Dickson	CRAB	CRAB
Jason Guthrie	Lincoln County	East side local government
Art Shaffer	WSDOT NW Region Maintenance & Ops	Alternate WSDOT
Pat Whittaker	WSDOT Transportation Data Office	WSDOT Transportation Data Office
Tim Young	Washington Department of Fish and Wildlife	Natural Resource Organizations

- Introductions, Status Questions, Time Tracking, Action Item Review
- Front-end for Data Users
- Discussion of Proposed Roads
- MOU, Data Sharing Agreements and Agreement Points
- Draft Data Provider Policy
- Feedback and Correction Process
- Versioning, Update Cycles, Access to Earlier Versions and Notification of Updates
- Crosswalk Classifications
- ~~Process for Reconciling Segment Schemes~~
- Draft Process for Dealing with Different Scale and Accuracy
- Action items review & closing

Introductions Status, Time Tracking and Review Action Items

Eastern Region (Spokane) was not connected as they were supposed to be. As a result Jason Guthrie left early. Tami agreed to follow up and try to prevent this from happening again.

Action Item: Tami will check with the video-conferencing people to make sure they know about the failure in the video-conferencing and have a way to prevent it in the future.

Tami introduced David Koch from the Department of Information Services and Sarah Schroder who will be participating in the Steering Committee from now on. Both are participating as a result of processes the state requires to make sure higher risk projects have appropriate oversight.

WA-Trans Steering Committee Meeting Notes
April 25, 2005

There was discussion about the action items, because several of them are not getting completed. It was agreed that some of them needed to be done the meeting next July or we would have to let the pilots handle them and live with their decisions. Others we can work on later. Tami will identify and clarify which must be done and remind those who have those items two weeks prior to the meeting that they need to do them. Any not done will be left to the pilot projects and the steering committee loses their input.

Front-end for Data Users

Tami presented Art's submission of the high level requirements for the Front-end for data users. It appears that requirements have been lost in the update process. For instance the ability to perform the x,y clipping capability has disappeared. Tami will go back through all the versions and make sure the requirements are all back in. Some additional requirements have been added: We need to add something to the data users access that allows the user to query out past and future (planned data). We need to make past and future roads not the default or secure those roads so only some people can get that data. We could hide it based on user group. We need to add versioning to these documents to make sure we keep track of them.

Action Item: Tami (or another volunteer) will go back through all previous versions and make sure all the requirements are contained in the current version.
Action Item: Tami (or another volunteer) will add the additional requirement regarding access to past and future infrastructure data.
Action Item: Tami (or another volunteer) will add a requirement that metadata pop up of the data to be downloaded so this information is to be read as part of the download process.
Action Item: Tami (or another volunteer) will add requirements for a mechanism to provide feedback to the data provider can be part of the data user screen and would be send by e-mail to the provider.
Action Item: Tami will assign the new assistant to add versioning to all the architecture, processes, and policies documents.

The document presented about requirements for a front-end for data users is Appendix A of these notes.

Discussion of Proposed Roads

At the last meeting there was a discussion of inclusion of data about proposed roads. We decided to put it on the agenda for this meeting when Jerry could be there since planning is his area. WSDOT wants planned roads in there. Jerry said PSRC wants the data. The model can handle proposed line segments as well as proposed name changes. Dave R. is concerned that it might be difficult for the general data user to deal with those records. Users can query those records out. Jerry suggested that maybe we don't need it available from the standard front-end. The committee agreed that we either make specific queries to handle this or make this data available to specific users. We must make metadata very clear.

Action Item: Make changes to Data User Interface requirements as described.
Action Item: Add to processes regarding metadata that we need to provide information about which are planned, and past records. Tami will make sure this is included in policies and processes regarding metadata (see below).

MOU, Data Sharing Agreements and Agreement Points

We discussed the use of MOU for pilots. Tami approached the Puget Sound Pilot Action Committee (PAC) regarding the use of MOU initially and then working on formal data sharing agreements later since data sharing agreements generally involve lawyers. Dave R. thought we

had agreed we were going to do MOU. But many also want data sharing agreements. Chuck says you can't get Pierce County data without a data sharing agreement. Dave is concerned with relying on and nurturing the relationship and fears formal agreements may drive some participants off. The group agreed to make sure the agreements don't replace any relationship and that we need to still be able to pick up the phone to discuss issues. The pilot will assist with that. We know we will be creating expectations. The worst example of a data sharing agreement carrot included "free" data and then the things the other partner wanted in return. Frequently it turns out that "free" data is quite costly.

Michelle presented a draft data sharing agreement for feedback. The following feedback was provided:

There have to be sufficient loopholes in the agreements.
We need the agreements to be with WSDOT, not WA-Trans.
Dave R. wants the language changed to make the data steward commitment a little bit less "certain".
The agreement needs a termination clause.
The agreement needs to say "for the pilots".
The agreement needs language about scheduling and tasks under agreement.
We need the agreement to refer to an LRS for LRS based data.
We will have to alter the metadata.

It is clear that WA-Trans will have to change data in some situations (e.g., conflation of attribution to geometry, moving geometry for integration, clipping based on authority of a specific infrastructure). We will need to document this in the metadata. We need to identify a process for updating metadata. The database captures information about sources and it could capture information changes. We need to describe the process in FGCD Metadata. The committee decided to let the pilot handle this. Tami will put this in process and policies.

Action Item: Michelle will make changes to the data sharing agreement based on the discussion documented above.
Action Item: Tami needs to check with George Spencer about who signs for WA-Trans. It is **Paula Hammond.**
Action Item: Tami will add a process for updating metadata to the policies and processes list.

The draft memorandum of understanding Michelle presented is in Appendix B of the notes.

Draft Data Provider Policy

Dave is trying to answer whom will we ask to sign the MOU or data sharing agreement. There is a broad array of places we will get data from. There is a broad array of places that provide the physical infrastructure. They survey database group determined that the easiest place to coordinate was at the county level. The County Engineer has a statutory requirement to maintain that map of the physical infrastructure.

Jerry suggested when we bring a county on board we need to sound out a county regarding cities and their data. County engineers don't care as much about cities and addresses.

What about rail and airports? Spokane County maintains those relationships. The counties will want the rail data too. But they may not always be the first provider, but will very likely be the long-term provider.

Michelle thinks WSDOT would want to appoint somebody to work with this. We only have a few people who have the knowledge of where a road begins and ends. An example she provided was that there are some roads that end in Oregon. The county may not know or care about that.

We need to make a special effort with tribes. The Centennial Accord requires government to government regarding tribal data. We must work directly with them in order to follow the accord. If the tribes don't provide us with data it will be just like any other jurisdiction that doesn't provide us with data.

Dave thinks RTPO and MPO are data users. But PSRC maintains a lot of route data that sits on top. There is concern that addresses and other things may not be in the County Engineers Office. The committee decided that we want two contacts. We will start with the County Engineers Office and then contact the known GIS contact.

The policy needs to have language for non-roads data, state agency data, and cities data. They may not be the first contact, but we need to be prepared to deal with them.

The word "municipal" in the second paragraph under discussion needs to be changed to "metropolitan".

Action Item: Dave R. will make the changes as described previously.

The "Draft Data Provider Policy" is Appendix C of these notes.

Feedback and Correction Process

Chuck created a Data Provider Feedback and Correction Process draft document. This documents scenarios for submitting data and getting feedback from the process. Much of it is part of the translator requirements already identified.

One comments made was that it appeared to be missing a process for providing feedback to original data steward. It might be useful to make notification to customers that you know there are errors.

How do we contact provider if there is a problem? It should be part of MOU/ data sharing agreement that feedback will be provided and how that is handled. During the download process the metadata should be popped up. This is a requirement for the data users screen. A mechanism to provide feedback to the data provider can be part of the data user screen and would be provided by e-mail. These *action items* related to the data user screen have already been listed under that topic.

Action Item: Michelle will add the feedback language to the draft MOU.

The document Chuck presented of high-level specifications for a Feedback and Correction Process are in Appendix D of this document.

Versioning, Update Cycles, Access to Earlier Versions and Notification of Updates

Regarding the Data Versioning and Archiving document:
- Add a statement regarding access to the archived versions.
- Add statement regarding snapshot date and consider federal reporting requirements when doing this.   Pat Whittaker can provide information regarding federal reporting requirements.

Regarding Data Update Cycles / Notification document:
- Copy the table with target accuracy and temporal accuracy from the notes into this policy.

Action Item: Pat send Tami information (to pass on to Dave C. and document) regarding federal reporting requirements.
Action Item: Dave C. Make changes as documented above to the documents.

Appendix E contains the Draft Data Versioning and Archiving document.
Appendix F contains the Draft Data Update Cycles/Notification document

Crosswalk Classifications

After looking at the various classification systems and Pat's document regarding them it was hard to tell how difficult it would be to crosswalk them. It may be something that takes some real effort. The group decided to get as much different classification information as possible and then decide how difficult it will be to do this and whether it is feasible. This is a domain issue for the database.

Action Item: Wendy will get new census classifications.
Action Item: Elizabeth will be asked to get freight classification system information.
Action Item: Jerry will check on the relationship with Metropolitan Transportation Plan and FCC.
Action Item: Sam will check on TNM classifications.
Action Item: Tami will put on the agenda for the July meeting.

The information Pat compiled for the crosswalk classification is in Appendix G of these notes.

Draft Process for Dealing with Different Scale and Accuracy

Jerry has not yet developed this but there is concern about whether we wait for pilots for scale accuracy. We need to handle it earlier in the pilot. It will be better to wait until pilot. Determining whose attributes are more accurate is going to be difficult. There are differing kinds of accuracy. We will need to make sure this is well documented during the pilot.

Action Item: Tami document everything the pilots are to handle.

Action items review & closing

The next meeting is July 25th in Olympia and is only **scheduled from 9 a.m. to noon**! Tami will be providing a lunch but this will probably be the last time.

 Appendix A – Front End for Data Users

Access for Viewing and Downloading User Files

General

A web portal will be established to list the agency's core data sets as well as additional supportive layers for background and reference. Mapping functions will be available for both navigation and identification of data sets and layers.

Structure
The website will be composed of the following pages:
- Framework overview
- Web portal page
- Data Sets for Downloading
- Disclaimers/Release of liability to be read before accessing mapping and data sets for downloading
- Resource links for other framework and supporting data layer sets

Viewing/Access for Download
The following data sets are examples of what may be included in the interactive web page. Core Transportation layers and metadata files will be available for distribution through the web portal. A metadata button will appear on the opening statewide view screen. It will give the minimum attributes available and the minimum data accuracy standards for the various data in Framework. In addition, there will be information regarding when updates are scheduled and/or pending, an explanation of what "Periodicity of Updates" is, along with a statement that some data may be available with additional attributes and higher accuracy. (These areas could be color coded for easier identification by the viewer/user. Clicking on an area will bring up that metadata). The boundaries for these areas are to be determined by the originating agency and can be a representation of their UGA or other determining factor, such as transit district or fire district. Ownership of items in these areas that are not part of the originating agency's inventory will be highlighted to alert the viewer of other agency responsibility. The user will then have the choice to view/download data by boundary or by originating agency within the boundary. When the viewer selects to download data, they will first be asked to download its corresponding metadata. If the viewer does not download the metadata, an alert to the user that WA-Trans is not responsible for incorrect assumptions made about the data resulting from not reviewing the metadata will appear before any download will begin. Transportation Framework will provide links to the originating agency's website for downloading or accessing of data sets belonging to other agencies or entities. Metadata for those data sets would be the responsibility of the provider.

WA-Trans Steering Committee Meeting Notes
April 25, 2005

Core Data Sets
1. Federal
2. State Highway system
3. Highway Ramps
4. Mileposts
5. Rest Areas
6. Scenic Highways
7. Local Roads
8. Bridges
9. Railroads
10. Ferry Transit Routes
11. Aviation Routes

Reference Data Sets
1. County Boundaries
2. Urbanized Areas
3. Reservation boundaries

Additional Data Sets for Download/Access
1. CRIS Data (Mobility?)
2. Survey Data

Map functions to be made available:
- Zoom in/out
- Full view
- Pan
- Search by:
    - Location (regional, county or city)
    - Identifiers (street names or intersections)
    - Jurisdictional agency (federal, state or local authority)
    - Urban Growth Area
- Query Data
- Export Data by
    - Selection
    - Data set name
    - All Data Sets shown

Formats
Formats to be made available for Download/Access
1. Shape files, ArcGIS feature data sets for ArcSDE, .dxf or .dgn,
2. .MDB, Excel, DBF, .txt,
3. JPEG, TIFF, bmp or GIF
4. Projection- Washington State Plane South NAD 83 only. (.PRJ files to be provided with shape files)

Appendix B – Draft Memorandum of Understanding Template

MEMORANDUM OF UNDERSTANDING

between

the

WASHINGTON TRANSPORTATION FRAMEWORK,
(WA-Trans)

and

(DATA STEWARD)

PURPOSE OF THE WASHINGTON TRANSPORTATION FRAMEWORK:

The goal of the Washington Transportation Framework (WA-Trans) is to provide transportation data for statewide Geographic Information System (GIS) use. To achieve this goal, WA-Trans will make use of the best available spatial transportation data to create a seamless statewide data set for Public Use at the least cost and with the least restrictions on use. The WA-Trans data will work with other statewide framework layers being developed or in existence, including hydrography (water ways), cadastral (property boundaries), and orthophotography.

The Washington State Department of Transportation serves as the Washington Transportation Framework's steward organization.

PERIOD OF THE AGREEMENT:

This agreement shall begin as of this Memorandum of Understanding's signature date and shall last until _____.

REFERENCES:

- WA-Trans Data Standards
- Data Provider Policy

ROLES AND RESPONSIBILITIES:

The DATA STEWARD agrees to:

- Provide data that is topologically clean when in GIS format (i.e. data provided as ESRI Shapefiles or ArcGIS Feature Classes).

- Submit data for road, rail, transit, ferries, air, and/or non-mechanized transportations modes, as per (Section (3.0), WA-Trans Data Standards) at the stipulated target scales, as per Section (6.2) and (6.3), WA-Trans Data Standard.
- Provide linear features that are contiguous across coverage boundaries (i.e. where a single geographic feature is split into adjacent coverages or tiles, it should be edge-matched).
- Include one attribute record for every feature (point, line, etc).
- Include complete attributes, as designated by the required attribution (Section (3.0), WA-Trans Data Standards), for each layer of submitted data.
- Only submit data of which you are the legal "data steward," as defined by the WA-Trans Data Standards, Section (3.1.2).
- Include metadata with data submission, as per the WA-Trans Data Standards, Section (5.0).
- Provide Segment Description data for all appropriate Segments if Event data is provided.
- Recognize that provided data may be altered and combined with other data to create the best available spatial data and attributes (WA-Trans Data Standards, Section (4.1).
- Work with adjoining providers to establish Agreement Points. Agreement Points insure that data from neighboring sources maintain seamless feature continuity.
- Recognize that any data included in the Washington Transportation Framework will be made available for Public Use.
- Utilize the following formats for Washington Transportation Framework data Download/Access:
  - ESRI Shapefiles, ArcGIS Feature Classes, DXF or DGN,
  - MDB, Excel, DBF, TXT,
  - JPEG, TIFF, BMP or GIF
  - Projection- Washington State Plane South NAD 83-91 (HARN) only. (.PRJ files to be provided with shape files)
- Provide updates as stipulated in Section (6.3), WA-Trans Data Standards.

The WASHINGTON TRANSPORTATION FRAMEWORK agrees to:

- Provide contributing Data Stewards with an interface to contribute, view, access, and download WA-Trans data utilizing the following formats:
  - ESRI Shapefiles, ArcGIS Feature Classes, DXF or DGN,
  - MDB, Excel, DBF, TXT,
  - JPEG, TIFF, BMP or GIF
  - Projection- Washington State Plane South NAD 83-91 (HARN) only. (.PRJ files to be provided with shape files)
- Provide a means to translate, integrate, QA/QC, and provide linear referencing integration within the WA-Trans system.
- Provide security measures for the WA-Trans database and system to protect contributed data and data deemed private.
- Provide guidance and facilitation for establishment of WA-Trans Agreement Points, and for dispute resolution between contributing Data Stewards.

DISPUTE RESOLUTION:

In the event of a dispute between the parties regarding this Memorandum of Understanding, the parties shall attempt to resolve the manner informally. If the parties are unable to resolve the matter informally within ____ days, the matter shall be decided by _____.

OTHER PROVISIONS:

This Memorandum of Understanding may be amended only by an instrument in writing, duly executed by both parties.

WASHINGTON TRANSPORTATION   DATA STEWARD
FRAMEWORK

_____   _____
Signature   Signature

_____   _____
Title   Title

_____   _____
Date   Date

Appendix C – Draft Data Provider Policy

DRAFT WA-TRANS DATA PROVIDER POLICY

Discussion:

Data maybe provided by a number of different sources. Some providers such as Counties, Indian Reservations, or Cities have defined geographic extents, while others, such as the DOT have data which is more jurisdictional in nature, and less defined by geography than by ownership. WA-Trans overall goal is to have a statewide database of all transportation features to meet business needs for a multitude of partners. We expect that data providers could include Counties, Cities, American Indian Reservations, private agencies, State Departments of Transportation, Natural Resources, and Parks, and Federal agencies such as National Parks, Bureau of Land Management, and the Census Bureau.

The management of data from all of these sources is a monumental task. It may be beneficial to have regional coordinators to funnel data into WA-Trans. In many communities, County-level government has emerged as the de facto coordinator for multiple transportation authorities within their jurisdiction. At the County level, the County Engineer (or Public Works Director) is the office charged with records maintenance for the physical transportation infrastructure. Municipal Planning Organizations (MPO's) or Councils of Government (COG's) are another option, but they do not cover the entire state.

In many Counties, road and transportation data has been compiled into a GIS by some agency other than the County Engineer, such as the County Assessor, a Planning Department, or an Information Systems Department.

Draft language:

In order to facilitate the management of a large volume of data, it is the policy of WA-TRANS that the primary contact for transportation data shall be the County Engineer of the various counties. The County Engineer may choose to be the primary data provider or they may designate an alternate data provider, such as another County Department or the regional MPO. WA-Trans encourages regional cooperation between jurisdictions at the local level. Agencies, or other groups, who are responsible for the physical construction and maintenance of road segments (such as Cities, Tribes, State Parks, National Forest, etc.) have the option of becoming primary contacts at their request. The County Engineer will be contacted yearly to update their choice of data provider. If the County Engineer does not participate in WA-Trans by providing data or by designating a data provider, the County agency that maintains transportation data in a GIS shall become a primary data provider by default. If no County agency is a primary data provider, Census Bureau data will be considered the primary data source.

Appendix D – Data Provider Feedback and Correction Process

WATrans Steering Committee

Data Provider Feedback and Correction Process (High Level Draft)

This document builds on the Specifications of Data Submission Interface document.

There are two scenarios for submitting data to the transportation framework: first time submittals and experienced submittals. For a first time submittal the submitter matches fields in their dataset to those of the framework data model. This process creates an XML document that is used by the translator to convert the dataset into the framework data structure. Experienced data providers submit their dataset by selecting their name/agency from the submitters list and the dataset is checked against their XML document to ensure the dataset is in the same structure as prior submittals. If this is not the case, then the submitter is requested to go through the field matching process again.

After the XML document has been built and/or the dataset verified each record in the data set is checked for completeness. This includes checking for valid data values in fields and that required fields are populated with data. If a record is rejected, it is written to a report with a comment as to why it was rejected. After the entire data set has been checked the report will be provided to the submitter. The submitter then has the option of correcting their dataset or going on to the translation process knowing that the rejected records will not be processed by the translator and therefore not be available in the framework database. A copy of the report will also be sent to the WATrans Data Steward.

During this process metadata will also be checked. If this is a first time submittal, the user will be asked to supply a metadata file or they will be required to fill out a minimum metadata form. Submitted metadata files will be checked for completeness of a minimum set of metadata items and the submitter will be asked to supply any missing items. Dates will be updated.

Appendix E – Draft Data Versioning and Archiving Policy

WA-TRANS DATA VERSIONING AND ARCHIVING

Introduction

There are many long-term benefits of versioning and archiving of WA-TRANS datasets. Core business needs and many specialized projects often require the use of historical data. The goal of this policy is to outline general criteria that facilitate the storage and retrieval of previous versions of WA-TRANS.

Adopted language:

1. It is the policy of WA-TRANS that the completed framework dataset will have a "snapshot" of the database taken and archived annually.
2. WSDOT will maintain the archived data for future use.

Appendix F – Draft Data Update Cycles / Notification

WA-TRANS DATA UPDATE CYCLES/NOTIFICATION

Introduction

Geospatial data needs to be updated at regular intervals in order to stay useful. By having a set
update cycle that several agencies can agree to, we will have a dataset that is regularly updated,
its quality assured in a reasonable timeframe, and redistributed to partners and the public.

Adopted Language:

WA-TRANS acknowledges that a data updates provided by partners may vary in frequency
depending on business needs of the partnering agency. Data update intervals to WA-TRANS will
be defined where feasible in data sharing agreements and will be documented additionally in the
metadata. Notification of updates to framework data will be posted at the WA-TRANS web site.

Appendix G – Crosswalk of Classifications

Washington Road/Transportation Classification Systems

Roadways				
Federal Functional Classification		**State Functional Classification**		**Metropolitan Transportation System**
Name	Number	Name	Number	Name
Rural Interstate	1	Rural Interstate	R5	Interstate
Rural Principal Arterial Other	2	Rural Principal	R1	Principal Arterial
Rural Minor Arterial	6	Rural Minor	R2	Minor Arterial
Rural Major Collector	7	Rural Collector	R3	Collector
Rural Minor Collector	8	Rural Collector	R3	Collector
Rural Local	9	Rural Unclassified	R4	Local
Urban Interstate	11	Urban Interstate	U5	Interstate
Urban Principal Arterial Freeway/Expressway	12	Urban Principal	U1	Principal Arterial
Urban Principal Arterial Other	14	Urban Principal	U1	Principal Arterial
Urban Minor Arterial	16	Urban Minor	U2	Minor Arterial
Urban Collector	17	Urban Collector	U3	Collector
Urban Local	19	Urban Unclassified	U4	Local
Ferry				
				Metropolitan Transportation System
Transit				
				Metropolitan Transportation System
Non-motorized				
				Metropolitan Transportation System
Freight & Goods				
				Metropolitan Transportation System
Intercity Passenger Rail				
				Metropolitan Transportation System
Regional Aviation				
				Metropolitan Transportation System